



U.S. Department
of Transportation

Pipeline and
Hazardous Materials
Safety Administration

IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE USA/0462/S-96, REVISION 6

East Building, PHH-23
1200 New Jersey Avenue SE
Washington, D.C. 20590

This certifies that the sources described have been demonstrated to meet the regulatory requirements for special form radioactive material as prescribed in the regulations of the International Atomic Energy Agency¹ and the United States of America² for the transport of radioactive material.

1. Source Identification - Eckert & Ziegler Isotope Products Laboratories Models 3021-1 (formerly 3021), 3021-2 and 3027.
2. Source Description - Cylindrical double (Model 3021-2) or triple (Models 3021-1 and 3027) encapsulations made of either Type 304 (Models 3021-1 and 3021-2) or Type 316 (Model 3027) stainless steel and fusion seal welded. Approximate outer dimensions are 12.7 mm (0.5 in.) in diameter and either 12.7 mm (0.5 in.) (Models 3021-1 and 3021-2) or 19.1 mm (0.75 in.) (Model 3027) in length. The inner encapsulation of the Models 3021-1 and 3027 is a QSA Global, Inc. (formerly AEA Technology QSA, Inc. and Amersham) Model X.1. Construction shall be in accordance with attached Eckert & Ziegler Isotope Products Drawing No. 3021-REG, Rev. A, Sheet 1 of 2 (Model 3021-1) or Sheet 2 of 2 (Model 3021-2) or Isotope Products Laboratories Drawing No. 3027, Rev. C, Sheet 3 of 7 (Model 3027).
3. Radioactive Contents - No more than 1.48 GBq (40.0 mCi) of Americium-241 for the Models 3021-1 and 3027. No more than 3.7 GBq (100.0 mCi) of Americium-241 for the Model 3021-2. The Am-241 is in the form of an oxide mixed with beryllium powder (Models 3021-1 and 3027) or in the form of an oxide mixed with beryllium powder as a compressed powder pellet (Model 3021-2).
4. Quality Assurance - Records of Quality Assurance activities required by Paragraph 310 of the IAEA regulations¹ shall be maintained and made available to the authorized officials for at least three years after the last shipment authorized by this certificate. Consignors in the United States exporting shipments under this certificate shall satisfy the applicable requirements of Subpart H of 10 CFR 71.

¹ "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency(IAEA), Vienna, Austria.

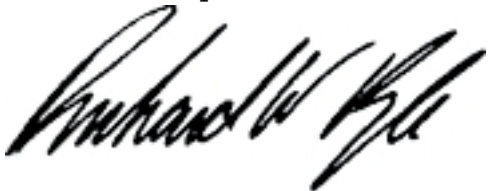
² Title 49, Code of Federal Regulations, Parts 100-199, United States of America.

CERTIFICATE USA/0462/S-96, REVISION 6

5. Expiration Date - This certificate expires on February 28, 2012. On May 31, 2008, this certificate supersedes all previous revisions of USA/0462/S-96.


This certificate is issued in accordance with paragraph 804 of the IAEA Regulations and Section 173.476 of Title 49 of the Code of Federal Regulations, in response to the February 20, 2008 petition by Eckert & Ziegler Isotope Products, Valencia, CA, and in consideration of other information on file in this Office.

Certified By:



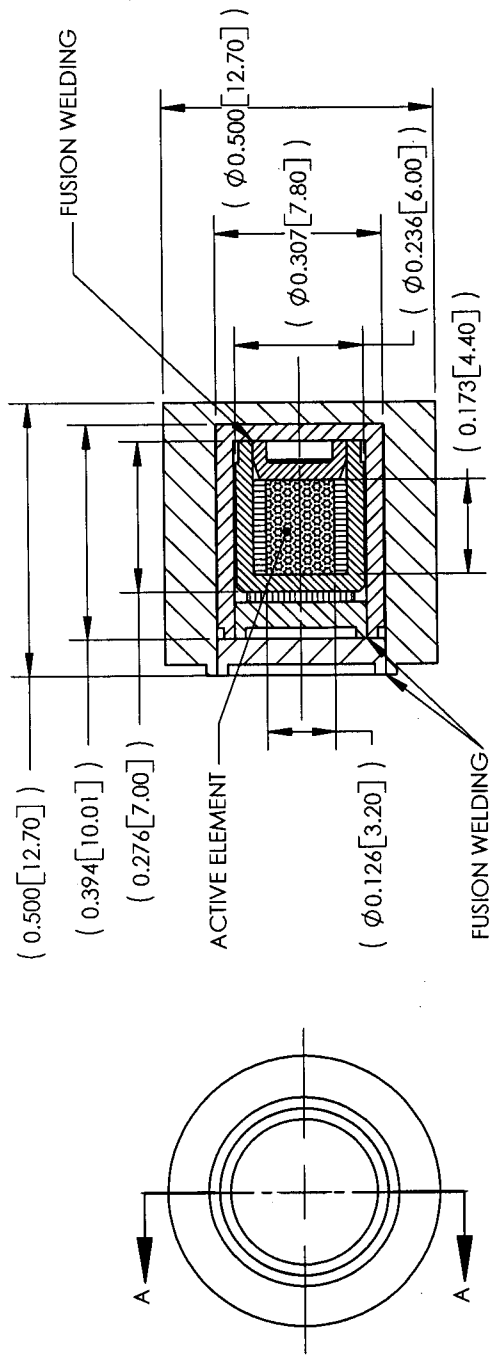
Feb 28 2008

(DATE)

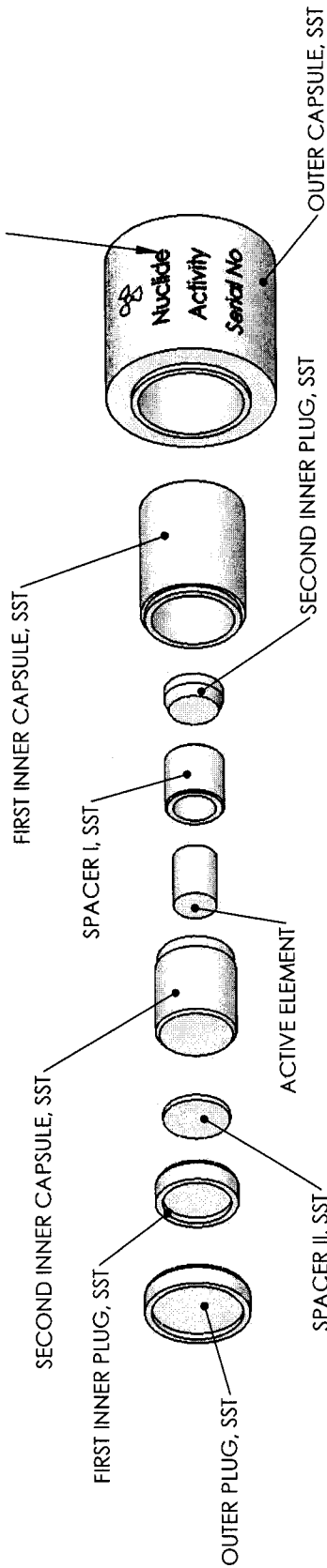
 Robert A. Richard

Deputy Associate Administrator for Hazardous Materials Safety

Revision 6 - Issued to add new model, redesignate Model 3021, and update drawings and corporate name.





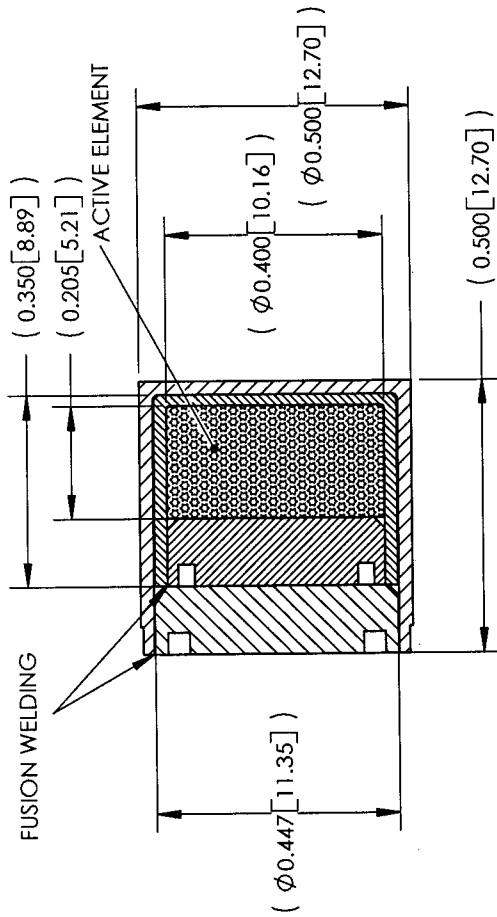
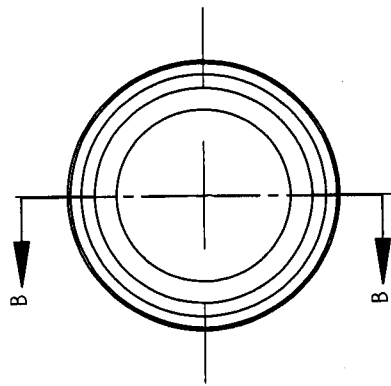
ENGRAVING LETTERS-1/16" HIGH
RADIATION SYMBOL OR THE WORD "Radioactive",
Nuclide,
Activity,
Serial Number



ENGRAVED INFORMATION MAY BE ON THE SIDE OF THE CAPSULE OR ON THE WINDOW.
1. P/N A3021-1 WAS FORMERLY A3021.
NOTES: UNLESS OTHERWISE SPECIFIED

P/N A3021-1 AmBe SEALED SOURCE ASSEMBLY I

<div></div> <div>Eckert & Ziegler</div> <div>Isotope Products</div> <div>VALENCIA, CALIFORNIA 91355</div>		<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCH-SIZES, METRIC UNITS [mm] ARE IN MILLIMETERS.</div> <div></div>		DRAWN KP		TITLE MODEL 3021 SERIES			
				ME/CHECKER EZ		SERIES TITLE HIGH INTENSITY GAMMA AND NEUTRON SOURCES			
				ENGINEER EZ					
<div>THIS DRAWING IS THE PROPERTY OF ECKERT & ZIEGLER ISOTOPE PRODUCTS AND MAY NOT BE USED, REPRODUCED, PUBLISHED OR DISCLOSED TO OTHERS WITHOUT EXPRESS AUTHORIZATION BY ECKERT & ZIEGLER ISOTOPE PRODUCTS.</div>		<div>THIRD ANGLE PROJECTION</div> <div></div>		SCALE NONE	SIZE A	CAGE CODE 32993	DRAWING NO. 3021-REG	REV A	SHEET 1 OF 2



SECTION B-B

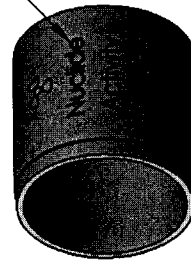
ENGRAVING LETTERS-1/16" HIGH
RADIATION SYMBOL OR THE WORD "Radioactive",
Nuclide,
Activity,
Serial Number

ACTIVE ELEMENT

INNER CAPSULE, SST

OUTER PLUG, SST

INNER PLUG, SST





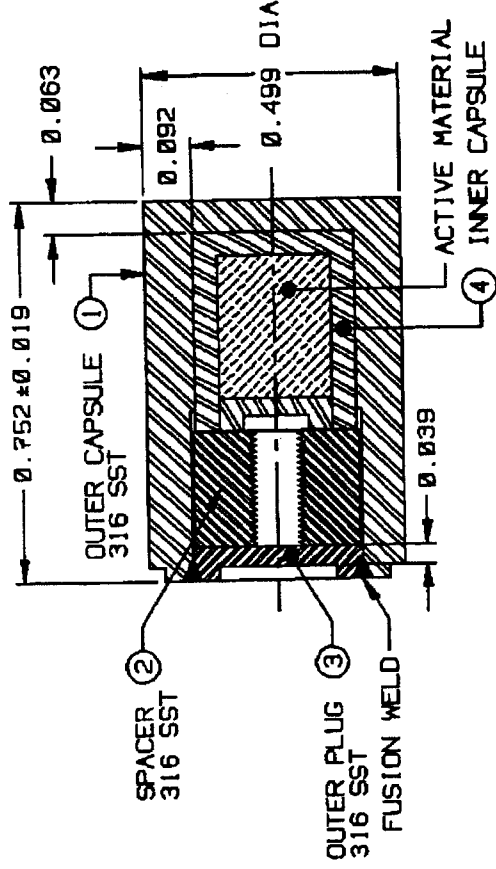
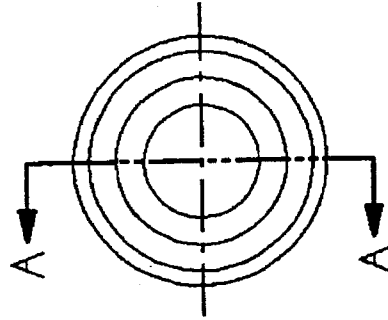
OUTER CAPSULE, SST

MODEL VIEW (NOT TO SCALE)

ENGRAVED INFORMATION MAY BE ON THE SIDE OF THE CAPSULE OR ON THE WINDOW.
1. P/N A3021-2 WAS FORMERLY RFQ885.
NOTES: UNLESS OTHERWISE SPECIFIED


P/N A3021-2 AmBe SEALED SOURCE ASSEMBLY II

<div>Eckert & Ziegler</div> <div>Isotope Products</div> <div>VALENCIA, CALIFORNIA 91355</div>	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCH-SIZES. METRIC UNITS [mm] ARE IN MILLIMETERS.		DRAWN KP		TITLE MODEL 3021 SERIES						
	<div>THIRD ANGLE PROJECTION</div> 		ME/CHECKER EZ		SERIES TITLE HIGH INTENSITY GAMMA AND NEUTRON SOURCES						
			ENGINEER EZ		CAGE CODE 32993		DRAWING NO. 3021-REG		REV A	SHEET 2 OF 2	
			SCALE NONE		SIZE A						
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SECTION A-A

P/N: A3027 ASSEMBLY

 ISOTOPE PRODUCTS
LABORATORIES
BURBANK, CALIFORNIA 91504

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WITHOUT EXPRESS AUTHORIZATION BY ISOTOPE PRODUCTS LABORATORIES.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		DESIGN JMD/RLT	DRAWING TITLE AmBe NEUTRON SOURCE	
FRAC- TION	TOLERANCES ON DECIMAL X .01 .002 ±.5°	SCALE NONE	SERIES TITLE INDUSTRIAL SOURCE. HIGH INTENSITY GAMMA AND NEUTRON	
±1/64	±.1	SIZE A	CAGE CODE 32993	REVISION C
THIRD ANGLE PROJECTION 			DRAWING NUMBER 3027	SHEET 3 OF 7



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East Building, PHH-23
1200 New Jersey Avenue SE
Washington, D.C. 20590

CERTIFICATE NUMBER: USA/0462/S-96, Revision 6

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